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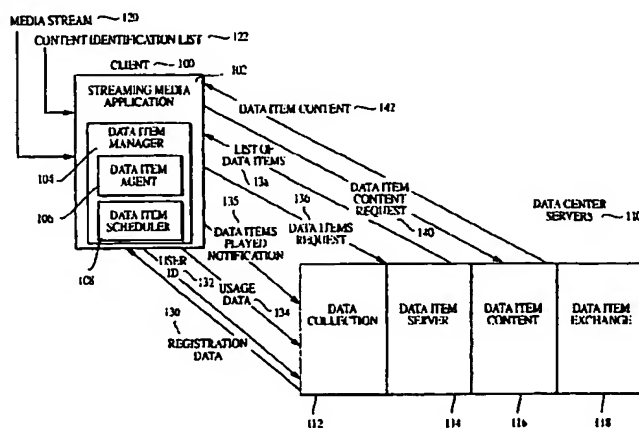
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**(54) Title: DATA ITEM REPLACEMENT IN A MEDIA STREAM OF A STREAMING MEDIA**



**(57) Abstract:** A Data Item Replacement System locates a queue point in a media stream received at a communications device. The queue point indicates a beginning of one or more specific data items in the media stream. Next, the Data Item Replacement System replaces the specific data items in the media stream with replacement data items. In particular, the media stream may be an audio stream and specific and replacement data items may be spots or advertisements. The replacement data items are targeted to users of the communications device. In particular, registration information (e.g., demographic information) and user usage information is collected from a user. Then, data items are selected by matching demographic information associated with the replacement data items with demographic information associated with a user. Additionally, the data items may be selected based on zero or more psychometric profiles, zero or more campaign metrics, and zero or more business rules. From these selected data items, replacement data items are chosen using history information about the replacement data items and using content identification list information.

# INTERNATIONAL SEARCH REPORT

In. ational Application No  
PCT/US 01/24918

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H04L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 778 187 A (BUTTERWORTH JAMES F ET AL) 7 July 1998 (1998-07-07)  column 2, line 1 - line 26 column 2, line 56 -column 3, line 67 column 4, line 57 -column 5, line 18 column 7, line 15 - line 32 column 7, line 60 -column 8, line 25 column 9, line 62 - line 65 column 10, line 30 -column 11, line 11 column 13, line 9 -column 14, line 63 column 16, line 64 -column 17, line 39	1-29, 37-65, 73-101
A	EP 0 822 535 A (AT & T CORP) 4 February 1998 (1998-02-04) column 4, line 2 - line 58	30,66, 102

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*Δ\* document member of the same patent family

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5778187	A	07-07-1998	AU 3002097 A	26-11-1997
			EP 0965087 A1	22-12-1999
			WO 9742582 A1	13-11-1997
			US 5983005 A	09-11-1999
			US 6119163 A	12-09-2000
EP 0822535	A	04-02-1998	CA 2210281 A1	01-02-1998
			EP 0822535 A2	04-02-1998